REMARKS

This is in response to the Final Office Action dated February 3, 2009. Applicant has amended the application as set forth above. In more specific, Claims 13 and 39 have been amended. All the features of the amended claims are fully supported by the originally filed application. Thus, the amendments do not add new matter to the application. Upon the entry of the amendments, Claims 13-41 are pending in this application. Applicant respectfully requests the entry of the amendments and reconsideration of the application.

Claim Rejections under 35 U.S.C. §102

The Examiner rejected Claims 13, 15, and 59 under 35 U.S.C. §102(b) as being anticipated by LATOS (US 3,880,969).

Applicant respectfully disagrees with the Examiner.

Claim 13 (emphasis added)

13. A method for preparing a porous ceramic body with excellent thermal insulation property, the method comprising:

an impregnation step in which a polymer sponge having a three-dimensional porous network structure with open cells is immersed in an inorganic adhesive, such that the polymer sponge is completely impregnated with the inorganic adhesive;

a dewatering step in which the inorganic adhesive is partially removed from the polymer sponge impregnated with the inorganic adhesive so as to create pores in a portion of the open cells in the three-dimensional porous network structure, such that the three-dimensional porous network structure of the polymer sponge is coated with the inorganic adhesive at an amount selected according to the desired density of the porous ceramic body; and

a drying step in which the polymer sponge from which the inorganic adhesive had been partially removed in the dewatering step is dried so as to cure the inorganic adhesive,

wherein the pores in the open cells in the three-dimensional porous network structure are provided without a sintering process.

Claim 13 of the present invention is directed to a method for preparing a porous ceramic body, comprising steps of immersing a polymer sponge in a liquid inorganic adhesive, removing a portion of the inorganic adhesive, and curing the inorganic adhesive, without a sintering process.

The Examiner stated "*The impregnated sponge is removed of excess slurry (dewatering of instant claim 13) and dried (drying of instant claim 13) (col., lines 21-23). Although LATOS does not explicitly state that the sponge has a coating, a person having ordinary skill in the art would have known that when the sponge is removed from being immersed in the aqueous slurry for impregnation, the slurry would leave a coating on the outer surface of the sponge*," implying Latos's steps anticipate the steps of the present invention.

Applicant respectfully disagrees with the Examiner.

LATOS discloses a step of squeezing out excess slurry before drying and firing process. However, LATOS does NOT teach or suggest how much of the excess slurry is removed from the impregnated organic sponge, and what the "excess" means any way. The purpose of squeezing out excess slurry is not clear in LATOS's disclosure, and it seems definitely NOT to be a process to obtain pores in the impregnated organic sponge. The strong heat-resistant open-celled porous structure are formed by firing process, LATOS keeps emphasizing through the disclosure.

Therefore, LATOS does NOT teach or suggest that "*the three-dimensional porous network structure of the polymer sponge is coated with the inorganic adhesive at an amount selected according to the desired density of the porous ceramic body*" as described in the invention. Since the pores are produced by firing the sponge itself away, the density of the porous structure may be controlled just by the density of the sponge.

Also, in the invention, the coating is formed all THROUGH the three-dimensional porous network structure of the polymer sponge, NOT on the outer surface of the sponge as suggested by the Examiner.

Also in the Response to Arguments, the Examiner stated "*Applicant's argument seems to suggest that even after drying the entire sponge of LATOS is completely nonporous – it is not clear how this is occurring since the drying step would remove the aqueous portion of the slurry used to impregnate the sponge thus clearly leaving voids (pores) within the impregnated sponge. It is further noted that the drying step of LATOS appears analogous to the instant dewatering step.*"

Applicant respectfully disagrees with the Examiner.

The step of dewatering in the invention produces pores inside the polymer sponge even before drying process especially with a controlled desired density of the porous ceramic body. That is, dewatering is a direct cause of obtaining pores inside the sponge, but NOT a pre-process to drying, which eventually gives pores at a later time.

Drying step in LATOS is uncontrollable, and extremely minor in effect, in producing the porous structure that is what the invention and the LATOS are all about. Applicant respectfully submits that LATOS's probable obtaining of pores through drying process does NOT teach anything about the invention's obtaining of pores through dewatering process.

Therefore, the amended Claim 13 and 39 are NOT anticipated by or obvious over LATOS and other cited references.

As discussed in the previous Office Action response, Latos's steps of impregnating, squeezing out, and drying seem to anticipate the similarly-named corresponding steps of the present invention, but they are distinctly different in preparing the porous structure. In Latos's method, the porous structure is not made even after through the three steps: impregnating, squeezing out, and drying. The pores are formed by firing the now-fully-impregnated open celled-organic sponge. Thereby, the open cells of the open-celled sponge are filled with the aqueous slurry, and the very sponge structure portions are fired away to leave as pores.

In contrast, the method according to the present invention, the pores are formed at the end of the dewatering step. The polymer sponge is impregnated completely right after the impregnating step. But, through dewatering step, the inorganic adhesive is partially removed to leave pores behind, in which the polymer sponge is coated with the inorganic adhesive, not filled up. Therefore, the created pores take place in substantially the same locations of the empty spaces of the three-dimensional porous network structure. Therefore, the three-dimensional porous network structure does not have to be fired and gotten rid of as ashes.

That is, even though they sound alike, the dewatering step of the present invention is distinctly different from the step of squeezing out excess slurry of Latos. The drying step of the present invention is also different from the step of drying of Latos. The porous structure is obtained after the dewatering step in the present invention, while it is only the fully-filled-up sponge block, in which no pores can be located, that was obtained after the step of drying in Latos's method.

Therefore, it is quite apparent that Latos's method does not include every steps equivalent to those of the present invention.

Applicant respectfully request withdrawal of the rejections.

Discussion of Claim Rejections under 35 U.S.C. 103(a)

The Examiner rejected Claim 14 under 35 U.S.C. 103(a) as being unpatentable over Latos, Claim 16 over Latos in view of Yasuda et al. (US 3,886,100), Claim 17 over Latos in view of Horiuchi et al. (US 5,919,546), Claim 18 over Latos in view of Jin (US 6,296,699), Claim 19 over Latos in view of Boutle (UIS 4,157,424), Claim 20 over Latos in view of Crooke et al. (US 4,332,753), Claims 21-23, 29, and 40 over Latos in view of Tansill (US 4,272,898) and Fuma et al. (US 4,623,499), Claim 24 over Latos in view of Tansill and Fuma, and further in view of Yasuda, Claim 25 over Latos in view of Tansill and Fuma, and further in view of Horiuchi, Claim 18 over Latos in view of Tansill and Fuma, and further in view of Jin, Claim 27 over Latos in view of Tansill and Fuma, and further in view of Boutle, Claim 28 over Latos in view of Tansill and Fuma, further in view of Crooke, Claim 30-32, 38, and 41 over Latos in view of Andersson, Claim 33 over Latos in view of Andersson, and further in view of Yasuda, Claim 34 over Latos in view of Andersson further in view of Horiuchi, Claim 33 over Latos in view of

Andersson further in view of Jin, Claim 33 over Latos in view of Andersson further in view of Boutle, and Claim 37 over Latos in view of Andersson further in view of Crooke.

In response, Applicant submits that since the dependent claims depend from the amended Claim 13 or 39 directly or indirectly and the cited references do not remedy the deficiency of LATOS as submitted regarding the 102 rejection in the above, the dependent claims are patentable for themselves. Applicant respectfully submits that the Claims 14-21, 31-38, and 40-41 are distinctly different from the cited references.

CONCLUSION

The applicant believes that the rejections were obviated by the amendment of claims, and the application is now in condition for allowance: therefore, reexamination, reconsideration and allowance of the claims are respectively requested. If there are any additional comments or requirements from the examination, the applicant asks for a non-final office action.

The Commissioner is hereby authorized to charge payment of any additional fees associated with this communication, or credit any over-payment to Deposit Account No. 16-0310.

Very truly yours,

Park Law Firm

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By:_____

Choongseop Lee, Ph.D.

Regis. No. 57,051

3255 Wilshire Blvd., Suite 1110
Los Angeles, California 90010
Tel: (213) 389-3777